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EXAMINER

YUAN, ALMARI ROMERO

ART UNIT	PAPER NUMBER
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2176

DATE MAILED: 12/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/886,299	Applicant(s) REILEY ET AL.	
	Examiner Almari Yuan	Art Unit 2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to communications: Application filed on 6/21/2001 and Preliminary Amendment filed on 1/15/02.
2. Claims 1-40 are pending in the case. Claims 1, 18, 29, 32, 35, 36, 37, 38, 39, and 40 are independent claims.

Claim Objections

3. Claims 33-34 are objected to because of the following informalities:
Regarding claims 33-34, these claims are system claims and are depending on method claim 31. Appropriate correction is required.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.
5. Claims 1-31 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1-31 are directed towards “method of transforming a web document”. This language reads on a mental construct/or abstract idea and is not tangible embodied on a computer readable medium or hardware. Furthermore, claims 1-31 are not tied to the technological arts, environment, or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. §101.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 1, 9-19, 23-29, 32, and 35-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fong et al. (USPN 6,279,015 B1 – filed 12/1997) in view of Brooke et al. (USPN 6,763,343 B1 – filed 09/1999).**

Regarding independent claim 1 and (claims 13, 17, 23, 27, 32, 35, and 40), Fong discloses:

Transforming a Web document from a first format into a second format (Fong on col. 2, lines 45-61 teaches transformation from one format to another format), comprising:

retrieving a copy of the Web document wherein the Web document comprises at least one element that is delimited and identified by at least one tag within the Web document (Fong on col. 7, lines 30-39 and col. 9, line 59 - col. 10, line 9: teaches a SGML document includes an element that is delimited and is identified by a start tag and end tag);

parsing the Web document to create a first data structure (Fong on col. 11, lines 1-21 teaches parsing document) comprised of a first hierarchical organization of elements from the Web document (Fong on col. 10, lines 34-62 teaches tree structure of a SGML document);

conducting a semantic analysis of the elements in the data structure (Fong on col. 11, lines 6-8 teaches Parser analyzes the document).

However, Fong does not explicitly disclose “re-arranging the elements in the first data structure based upon the semantic analysis to form a second data structure comprised of a new hierarchical organization of elements from the Web document, wherein the new hierarchical organization differs from the first hierarchical organization”.

Brooke on col. 6, lines 37-59 teaches constructing a result tree, elements from the source tree can be filtered and reordered and on col. 7, lines 6-22 teaches DOM defines the logical structure of the documents and identifies the semantics of the interfaces.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Brooke into Fong to provide a way to reorder elements from a source tree into a result tree, as taught by Brooke, incorporated into the tree structure of Fong, in order to facilitate the transformation from one format to another format.

Regarding dependent claim 9, Brooke discloses “deleting at least some of the elements from the hierarchical structure”, on col. 7, lines 10-12 teaches DOM can manipulate the elements from structure by deleting elements.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Brooke into Fong to provide a way to reorder elements from a source tree into a result tree, as taught by Brooke, incorporated into the tree structure of Fong, in order to facilitate the transformation from one format to another format.

Regarding dependent claim 10, Brooke discloses “adding new elements to form the second data structure”, on col. 7, lines 10-12 teaches DOM can manipulate the elements from structure by add elements to build documents.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Brooke into Fong to provide a way to reorder elements from a source tree into a result tree, as taught by Brooke, incorporated into the tree structure of Fong, in order to facilitate the transformation from one format to another format.

Regarding dependent claim 11, Fong discloses “merging a first element and second element from the hierarchical structure into a single element”, on col. 11, lines 1-21 teaches SGML to HTML mapping and transformation of elements.

Regarding dependent claim 12, Fong discloses “analyzing each of the elements in the hierarchical data structure, beginning with elements in a lowermost level in the hierarchical data structure and then analyzing the elements in a level above the lowermost level”, in col. 10, lines 34-62 teaches the tree structure has five levels and twenty nodes that is transformed to a tree structure of four levels and seven nodes corresponding to the resulting document.

Regarding dependent claim 14, Fong discloses “determining whether any of the elements are headers” on col. 9, lines 59-63 teaches determining the Title line.

Regarding dependent claim 15, Fong discloses “determining whether any of the elements are list items” on col. 12, lines 25-30 teaches determining List delimiters.

Regarding dependent claim 16, Fong discloses “categorizing each of the data elements into a predetermined category based upon a set of rules and appending an identifier to each data element to identify the category of the data element”, on col. 12, lines 14-21 teaches objects defined by class that describes the structure and behavior of an object.

Regarding independent claim 18 and (claims 19, 36, and 37), Fong discloses:

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Converting a Web page from a first format into a second format (Fong on col. 2, lines 45-61 teaches transformation from one format to another format), comprising:

identifying page elements in the Web page (Fong on col. 7, lines 30-39 and col. 9, line 59 - col. 10, line 9: teaches a SGML document includes elements and on col. 11, lines 1-11 teaches the parser recognizes contents within elements);

creating a native hierarchical arrangement having nodes that each correspond to a Web page element from the Web page (Fong on col. 10, lines 34-62 teaches tree structure of a SGML document having nodes);

performing a structural and semantic analysis on the native hierarchical arrangement (Fong on col. 11, lines 6-8 teaches Parser analyzes the document).

However, Fong does not explicitly disclose “identifying nodes for deletion from the hierarchical structure” and “creating a transformed hierarchical arrangement based upon the structural and semantic analysis “according to a set of rules”, wherein the transformed hierarchical arrangement takes into account the relative location and meaning of the elements in the native hierarchical arrangement”.

Brooke on col. 7, lines 6-22 teaches using the DOM the objects can be accessed to be deleted; on col. 6, lines 37-59 teaches constructing a result tree, elements from the source tree can be filtered and reordered from defining the elements with a schema (col. 6, lines 60-67); and on col. 7, lines 6-22 teaches DOM defines the logical structure of the documents and identifies the semantics of the interfaces.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Brooke into Fong to provide a way to reorder elements

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from a source tree into a result tree, as taught by Brooke, incorporated into the tree structure of Fong, in order to facilitate the transformation from one format to another format.

Regarding dependent claim 24, Brooke discloses “links that point to additional web pages”, on col. 3, lines 40-41 teaches links refer to one or more resources.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Brooke into Fong to provide a way to reorder elements from a source tree into a result tree, as taught by Brooke, incorporated into the tree structure of Fong, in order to facilitate the transformation from one format to another format.

Regarding dependent claim 25, Fong discloses “receiving request for a web page” on col. 4, lines 4-10 teaches user requests for an input file that is transformed to an output file.

Regarding dependent claim 26, Fong discloses “semantic analysis is conducted level-by-level”, col. 10, lines 34-62 teaches the tree structure has five levels and twenty nodes that is transformed to a tree structure of four levels and seven nodes corresponding to the resulting document.

Regarding dependent claim 28, Fong discloses “each node is associated with an identifier that corresponds to the tag for the element” on col. 10, lines 34-62 teaches each node on a tree structure corresponds to the elements of the document (col. 10, lines 26-32).

Regarding independent claim 29 and (claims 38 and 39),

Transforming a Web document (Fong on col. 2, lines 45-61 teaches transformation from one format to another format), comprising:

retrieving a native format version of the Web document, the Web document including at least one element that is delimited by at least one tag in the Web document (Fong on col. 7, lines

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30-39 and col. 9, line 59 - col. 10, line 9: teaches a SGML document includes an element that is delimited and is identified by a start tag and end tag),

performing an analysis of the elements of the Web document, the analysis taking into account semantics of the elements and a structural arrangement of the elements (Fong on col. 11, lines 6-8 teaches Parser analyzes the document).

However, Fong does not explicitly disclose “the native format version of the web document is not suitable for interpretation and display by a user device that requested the Web document”, “rearranging the elements as a result of the analysis to generate a hierarchical data structure that represents the Web document” and “generating a user device format version of the Web document based upon the hierarchical data structure, wherein the user device format version of the Web document is suitable for interpretation and display by the user device that requested the Web document”.

Brooke on col. 6, lines 37-59 teaches constructing a result tree, elements from the source tree can be filtered and reordered and on col. 7, lines 6-22 teaches DOM defines the logical structure of the documents and identifies the semantics of the interfaces and on col. 8, lines 61-55 teaches the post renderer converts the XML document to the document format required by the device or application software that will be used to display output document.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Brooke into Fong to provide a way to reorder elements from a source tree into a result tree, as taught by Brooke, incorporated into the tree structure of Fong, in order to facilitate the transformation from one format to another format.

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8. **Claims 2-8, 20-22, 30-31, and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fong and Brooke as applied to claims 1, 9-19, 23-29, 32, and 35-40 above, and further in view of Narayanaswamy (USPN 6,611,358 B1 – filed 06/1997).**

Regarding dependent claims 2 and 33, Fong and Brooke discloses the invention substantially as claimed as described above.

However, Fong and Brooke do not explicitly disclose “receiving information regarding a user device that requested the Web document to create a device-specific version of the Web document that is tailored for display on the user device”.

Naraynaswamy on col. 2, lines 33-50 and col. 6, lines 5-20 teaches a receiving native format is not supported by the device; wherein the display capabilities is identified to transcode and modify the format of the document that is suitable to be displayed.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Naraynaswamy into Fong and Brooke to provide a way to determine the device display capabilities to modify the document to be displayed, as taught by Naraynaswamy, incorporated in to the transformation of documents of Fong and Brooke, in order to enhance user document accessing and retrieving capabilities.

Regarding dependent claim 3, Naraynaswamy discloses “information regarding the user device includes memory capacity, display screen size, and data transmission bandwidth” on col. 2, lines 33-50 and col. 3, lines 3-7 teaches determining the device display capabilities to reduce document size, bandwidth and the time taken to transmit the document).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Naraynaswamy into Fong and Brooke to provide a way to

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determine the device display capabilities to modify the document to be displayed, as taught by Naraynaswamy, incorporated in to the transformation of documents of Fong and Brooke, in order to enhance user document accessing and retrieving capabilities.

Regarding dependent claims 4, 30, and 34, Brooke discloses “the device-specific version of the web document is divided into discrete fragment” on col. 8, lines 31-35 teaches result tree fragments.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Brooke into Fong and Naraynaswamy to provide a way to reorder elements from a source tree into a result tree fragments, as taught by Brooke, incorporated into the document structure of Fong and Naraynaswamy, in order to facilitate the transformation from one format to another format.

Regarding dependent claims 5 and 31, Fong discloses “a top level data fragment that represents a top level summary of the web document”, on col. 10, lines 34-62 teaches the tree structure has five levels and twenty nodes that is transformed to a tree structure of fours levels and seven nodes corresponding to the resulting document.

Regarding dependent claims 6-8 and 22, Fong discloses “descriptive markup language code (Fong on col. 2, lines 55-61 teaches markup languages such as HTML) and wherein parsing the web document to identify elements in the web document based upon the location of the tags and creating a node in the hierarchical structure for each element (Fong on col. 11, lines 1-21 teaches parsing document).

Regarding dependent claim 20, Naraynaswamy discloses “at least one transformed web pages have a data size that is tailored to fit within memory capacity, display screen size, and data

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transmission bandwidth”, on col. 2, lines 33-50 and col. 3, lines 3-7 teaches determining the device display capabilities to modify the document that will support the device capabilities.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Naraynaswamy into Fong and Brooke to provide a way to determine the device display capabilities to modify the document to be displayed, as taught by Naraynaswamy, incorporated in to the transformation of documents of Fong and Brooke, in order to enhance user document accessing and retrieving capabilities.

Regarding dependent claim 21, Fong discloses “table of contents for the transformed web pages”, on col. 11, lines 1-21 teaches the parser analyzes the input SGML document that will generate a symbol table for transformation.

Conclusion


9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Almari Yuan whose telephone number is 571-272-4104. The examiner can normally be reached on Mondays - Fridays (8:30am - 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild, can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AY
December 13, 2004


JOSEPH FEILD
SUPERVISORY PATENT EXAMINER